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DATAMATION

FOR MANAGERS OF INFORMATION TECHNOLOGY WORLDWIDE

MAY 1, 1991

An EIS For The Desktop

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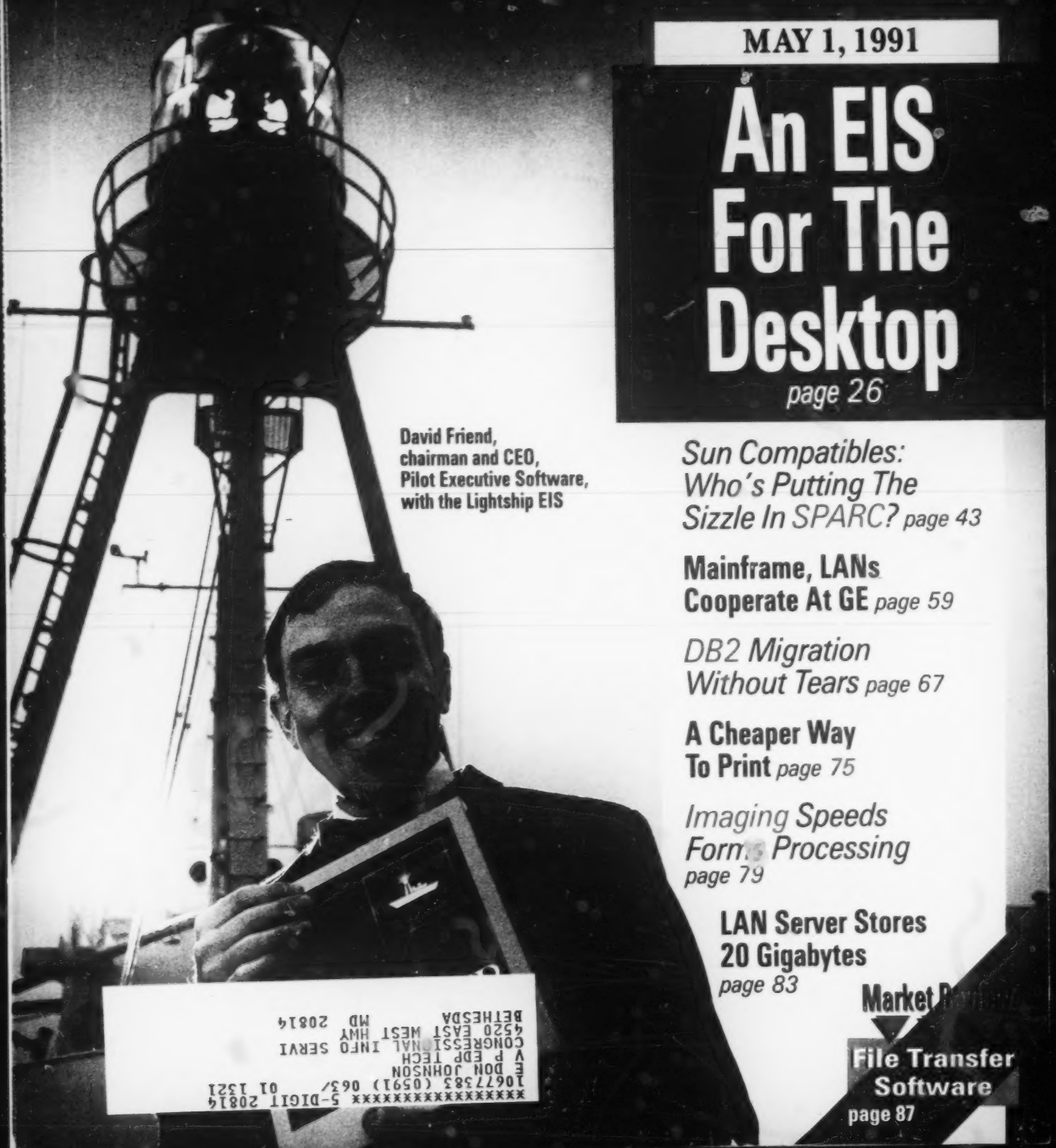

David Friend, chairman and CEO, Pilot Executive Software, with the Lightship EIS

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MAY 1, 1991

DATAMATION

FOR MANAGERS OF INFORMATION TECHNOLOGY WORLDWIDE

VOLUME 37
NUMBER 9

All aboard! Pilot's Friend steers the way to client/server computing.

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Cover photography by Carol Fatta

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An EIS For The Desktop

Pilot's Lightship is lighting the way to LAN-based executive information systems. But what effect will this have on corporate reporting standards?

BY PAUL PINELLA

Last September, Pilot Executive Software charted a new course for executive information software. After years of evangelizing the benefits of EIS and building substantial market share with its mainframe and minicomputer-based Command Center EIS products, Pilot announced Lightship—one of the first tools for Microsoft Windows designed to build and run EIS applications on PCs and local area networks.

Lightship represents a major departure from mainstream EIS thinking. Most EIS installations today are elaborate and expensive host-based management-reporting systems that provide top executives with quick access to key company information. Lightship, however, is a relatively inexpensive PC tool for building EIS applications on LANs. And, unlike most host-based EIS applications developed by programmers proficient in specialized languages, Lightship is object oriented. It eschews programming in favor of drop-down menu selections, drawing tools and the mouse. As a result, Lightship theoretically can be employed by any reasonably proficient Windows user to develop, modify and run applications that draw data from any workstation or server on a LAN.

> The danger is that you can get a lot of very nice screens not pointing to the right things.

Because Lightship-developed applications can be used by anyone equipped with a PC running Windows, Lightship could broaden EIS use to include thousands of middle-level managers and other employees who make critical business decisions every day. This objective has been talked about for years; practically all of the major EIS suppliers claim to have already reached out to a wider user base to one degree or another. But, by climbing aboard the Windows bandwagon first and pricing its product so aggressively—Lightship retails for $795—Pilot is in a position to lead the way toward making the transition to a new class of EIS, which it calls the "enterprise information system."

In 1980s computer parlance, the adjective *enterprise* was often used interchangeably with the term *host*. Pilot envisions a different meaning. The Boston-based software supplier sees tomorrow's organization as one where many departments, increasingly dependent upon LANs, are free to develop and use their own EIS systems customized to meet the needs of individual users.

It's a world not without risk. Some Pilot shops see danger in allowing EISs to proliferate in the hands of inexperienced users unaware of corporate data controls. Yet many more IS users are intrigued by Lightship's potential to deliver EIS power to growing numbers of decision makers who rely heavily on spreadsheets, PC databases and LANs. "Lightship is our recognition of the changing role of the mainframe in the corporate-computing structure," says David Friend, Pilot's chairman and chief executive officer. "We are basically saying that over the next five years there will be a move toward client/server computing across the organization."

EIS For Everyone

Most major players in the EIS market, including Pilot with its Command Center family, call upon on IBM mainframes or minicomputers to interact with executives seated at PC workstations. The PCs provide colorful and easy-to-use front ends to centralized EIS databases, along with at least some localized processing. Usually, these interfaces are proprietary and limited to a single company's EIS framework.

Lightship also employs an easy-to-use PC interface. But because it runs on top of Microsoft Windows, Lightship unlocks EIS from proprietary constraints, allowing users and programmers to incorporate data from other Windows applications using Microsoft's Dynamic Data Exchange (DDE) protocol. DDE support also allows Lightship to call upon other Windows packages to supplement its own basic set of EIS development tools. For example, a Lightship application could call upon Microsoft Excel to crunch numbers stored in a Microsoft SQL Server database. It could then pass the information to a presentation package such as Micrografx Charisma to display the information in chart form.

Should the user then want to see more information, Lightship incorporates data "drill down" features standard in most EIS applications. For example, by pointing and clicking on a bar chart indicating, say, $3.5 million in inventory, the user could pull up another chart showing that the inventory consists of $1.2 million in hammers, $1.8 million in nails and $500,000 in spare parts.

Lightship closely resembles other object-oriented PC software tools for building Windows applications, such as Actor from The Whitewater Group Inc., Lotus Development Corp.'s Notes and Asymetrix Corp.'s ToolBook. All of these packages provide us-

Young kids in each of the departments will be able to tackle these applications.

IN FOCUS

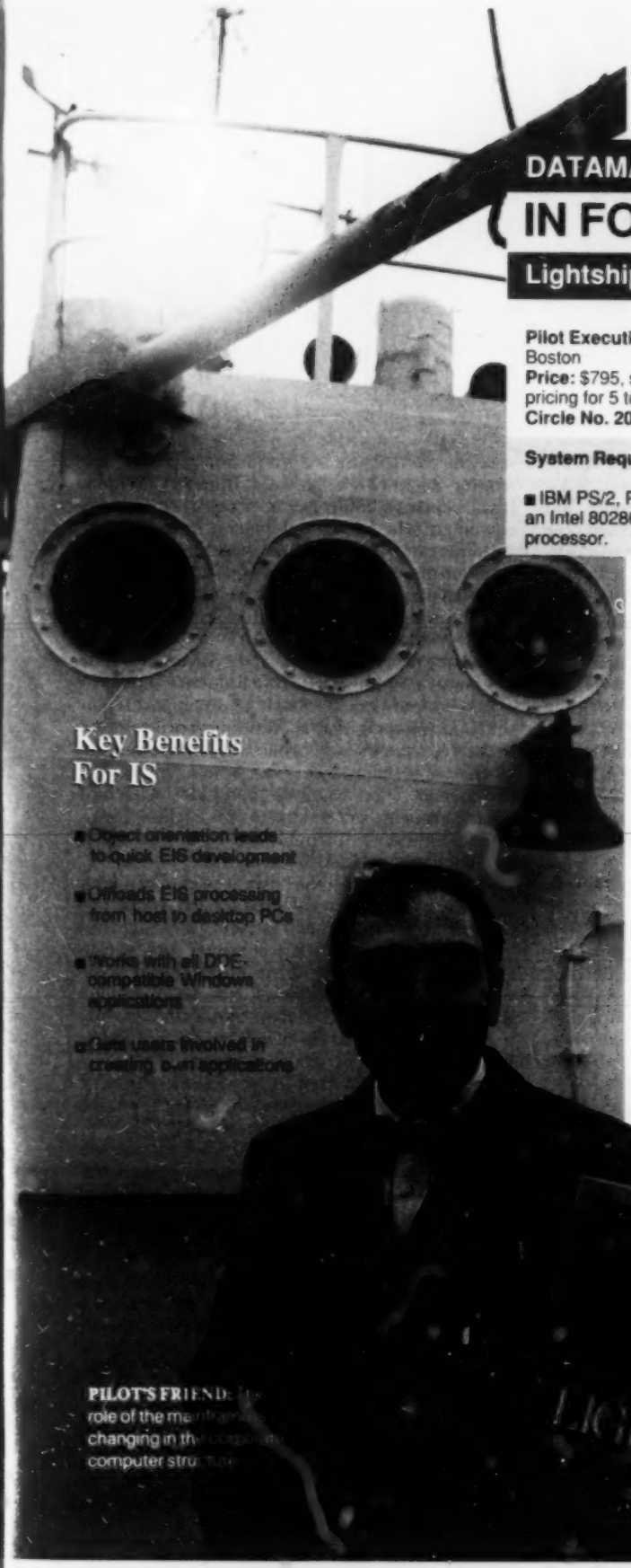
Lightship 2.0

Pilot Executive Software
Boston
Price: $795, single-user license; volume pricing for 5 to 100+ users available
Circle No. 201 on Reader Card

System Requirements

- IBM PS/2, PC AT or compatible with an Intel 80286, 80386 or 80486 microprocessor.
- Microsoft Windows version 3.0 or later
- Minimum of 2MB memory recommended
- 2.5MB of hard disk space
- EGA, VGA (recommended), 8514/A or Hercules graphics card
- Microsoft mouse or compatible

Source: Company reports, DATAMATION


Key Benefits For IS
Object orientation leads to quick EIS development
Offloads EIS processing from host to desktop PCs
Works with all DDE-compatible Windows applications
Gets users involved in creating EIS applications
LIGHTSHIP

PILOT'S FRIEND: The role of the mainframe is changing in the corporate computer structure.

ers with a highly graphical environment where simply pointing and clicking on data enables them to explore data interrelationships. What makes Lightship different from these other tools is its EIS orientation. It includes features for building in what users have come to expect of an EIS application: a data driven design; "hot spots" for drilling down; and dynamic screens.

By offloading most EIS processing chores to the PC, Lightship essentially delegates the data repository role to file servers or other centralized systems. That's why many customers and competitors were surprised last fall when Pilot announced Lightship without any connections to its bread-and-butter Command Center family. The rub is that while Lightship can access and display LAN-based information that might be stored in a spreadsheet file or DDE-compatible database, that same application cannot easily access EIS information stored in a Command Center host-based database—at least for now.

For new users, or those interested in developing low cost LAN-based EISs, that shouldn't be a problem. But users of existing Command Center packages for IBM mainframes running MVS or VM and for Digital VAX computers running VMS will look forward to the next major release of Command Center, version 4A, scheduled to ship early in the third quarter. "It will provide the ability for Lightship to ask questions directly of Command Center with no need for an intermediary product," says Douglas McCartney, product manager.

Meanwhile, Pilot says it is putting the finishing touches on an SCO UNIX version of Command Center designed for use on a LAN. The company says it will also ship this version early in the third quarter, but notes that initially it will

lack direct Lightship support.

That somebody would eventually combine Windows and EIS together is not in itself surprising. Virtually every major software company has announced at least its intention to migrate toward Microsoft's hugely successful graphical environment. What is surprising is that a company so mainframe oriented as Pilot would be first out of the chute with a PC product like Lightship.

In fact, Lightship is likely to remain a relatively small part of a software company that garners the bulk of its revenues from big-systems sales. Since its recent acquisition of the TECS division of U.K.-based Thorn EMI Software, privately held Pilot estimates that its 1991 revenues will approach $50 million and that it will employ 350 people. But its mainframe past could pose serious marketing and distribution challenges for Pilot in the future. "I think the intent of Lightship is to address a broader range of users," says Clare Gillan, senior analyst of applications solutions with International Data Corp. in Framingham, Mass.

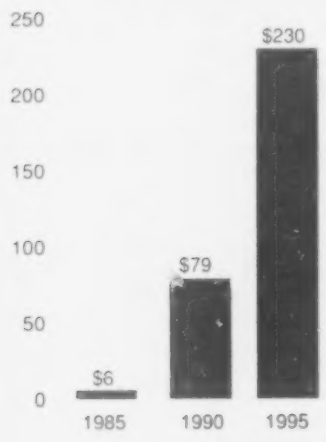
"Whether Pilot can pull it off remains to be seen. Lightship broadens the [base of] users they are going after, changes their sale [approach], and their competition."

To reach the PC market, Pilot realizes it must supplement its mainframe-oriented direct marketing approach to software sales. To develop new distribution channels for Lightship, the company is pursuing value-added resellers for now rather than going after software retailers.

Still, many early Lightship customers are drawn from Pilot's current user base, which the company is contacting directly. Many have expressed interest in the company's plans to meld Lightship and Command Center. Others are awaiting Lightship versions of a number of Command Center add-on applications that Pilot currently sells. Among these are Lightship renditions of Advantage, a hierarchical data viewer, and Dimension, a report generator. Both should be available by the third quarter of this year.

EIS Software Grows Up

Packaged EIS software sales are on the move. Combined mainframe, mini and micro sales are projected to reach $230 million by 1995.



Source: International Data Corp.

A New Kind Of Customer

With Lightship, of course, Pilot also hopes to attract a new set of customers who are convinced that PC-based EIS and LANs are the only way to go. Dan Kiesey, EIS/microcomputer systems manager at Rockwell International Corp. in Cedar Rapids, Iowa, is such a customer. While other divisions of El Segundo, Calif.-based Rockwell are users of host-based EIS systems, Kiesey's division never went that route. Instead, Kiesey attended an EIS seminar last year that convinced him that a downsized approach to EIS made the most sense. "One-third of all sessions were about how to brownnose the big shots to give you $220,000 to start an EIS," says Kiesey. "But we were very interested in a low-cost PC approach."

Two weeks after Lightship's announcement, Kiesey obtained a copy of the program. His group is now building a number of Lightship-based EIS applications that access SQL Server data stored on a 386-based file server. The database itself is an extract from those on HP 9000 and HP 3000 systems that's downloaded regularly to the LAN's file server.

One early Lightship application that Kiesey is readying for field use is a production-reporting system for Rockwell's Collins Air Transport division. It will replace a 256-page paper report that details equipment schedules and shipments from over 200 customers and suppliers. "Using just one screen, our users can do a heck of a lot more than they ever could with that paper report," says Kiesey. "I did this, and I'm not even a programmer. It doesn't hurt to be PC and Windows literate, though."

Keeping programmers out of the picture is exactly the point, says Kiesey. Rockwell doesn't intend to expand its four-person EIS staff just to support Lightship and is hoping that applications, once released to the departments, will be modified and supported by the users themselves. "Our whole approach is end-user EIS," says Kiesey. "Young kids in each of the departments will be able to tackle [these Lightship applications]. It's point and click. Plus SQL is easy enough for people to learn."

While satisfied with the current release of Lightship, Kiesey notes that the product is restrained by a limitation in DDE that restricts all Structured Query Language calls to 256 characters or less. (Microsoft hints that the problem will be solved in the next major release of Windows, expected in the fall.) Kiesey also feels the set of chart options in Lightship is limited. Other users have complained about Lightship's speed, or lack of it, especially when accessing a large amount of SQL information on a file server or host. According to Pilot, this too will be improved in a future version of Lightship.

For some customers, Lightship is attractive because a mainframe-based EIS is simply not available. The Valspar Corp., a Minneapolis manufacturer of paints, varnishes and related coatings, found itself in this situation when it went shopping for an EIS package for its Unisys 1100/92 mainframes. Few such systems were available and none at attractive prices. "A lot of the big EIS packages just won't run on our Unisys mainframes," says Jennifer Weiss, MIS business systems manager. So Valspar went looking for a PC-based solution that could also be used by on-the-road executives with portable PCs.

Lightship is now "the only EIS product we are using," says Weiss. Using a business management report application that Weiss recently completed in Lightship, executives can access up to 27 key company indicators relating to finance and safety. The data are downloaded from the mainframes into dBase files, which are then pulled into Lightship via

MARTIN MARIETTA'S DIAMANTE uses Lightship as a tool for developing computer-based training applications.

Q+E. This is a middleware package from Pioneer Software of Raleigh, N.C., that translates SQL requests into the DDE protocol that Lightship understands.

For every new user to EIS that Lightship brings into the fold, there are at least two other Command Center veterans test driving the product. Martin Marietta Corp.'s Electronics & Missiles Group in Orlando, Fla., counts itself in the latter camp, although it didn't begin to use Command Center until August 1990. That's when the company began to develop Command Center EIS applications running under HP-UX, HP's version of the UNIX operating system, on its Hewlett-Packard 9000 minicomputer. When Lightship was announced shortly thereafter, senior group engineer Michael Diamante saw its potential for developing a computer-based training application to acquaint executives with the features of its EIS. "We found Lightship to be superior for developing a training application, even though that's not what it's intended to be," he says.

We took our gamble with Windows, and spent a lot of time finding Microsoft's bugs.

Lightship is also being used at Martin Marietta to create an organizational chart application. When completed, the application will act as a front end into a Superbase 4 personnel database running on the HP 9000 in an MS-DOS partition. Users will be able to point and click on each branch of the chart and pull up a wide variety of information about individual employees in the company. A security component will restrict certain users' access to sensitive information. Diamante expects the application will be used widely throughout the company once it goes on line.

Getting FOCUSed

Martin Marietta decided not to implement Lightship on a LAN. Users access the HP hosts directly using PC Ethernet connections, essentially turning the HP 9000 minicomputer into a shared PC. More Lightship shops in the future may decide to access host-based DBMS data directly.

With that goal in mind, Pilot in January announced an agreement with New York City-based Information Builders Inc. to create a direct Light-

What The Competition Is Up To

Pilot Executive Software wins plenty of kudos from users and analysts for being among the first to bring Microsoft Windows 3.0 and executive information systems together. But, there's no shortage of challengers to Lightship.

Austin, Texas-based Execucom Systems Corp. praises Pilot's decision to implement Lightship under Windows. (At press time, Execucom officials announced that it was being acquired by Comshare Inc., a major EIS supplier based in Ann Arbor, Mich.) "Pilot's prescient decision to resist the lure of OS/2 . . . was a stroke of genius," says Mark Wood, director, EIS products.

Wood takes issue, however, with a number of Lightship design choices. Among them: Lightship's lack of analytical capabilities, its reliance on visual programming without providing an underlying development language and its dependence on Microsoft's Dynamic Data Exchange (DDE) protocol to the exclusion of more commonly used terminal protocols. Execucom is readying its own Windows-based version of its Executive Edge workstation executive information software, which it says will be available this month.

Information Resources Inc.'s DSS Division, an EIS and decision support system supplier in Waltham, Mass., also praises Lightship's Windows approach. "People want to buy a Windows product. We are developing a Windows product. In that sense, Lightship is right on the money," says Jeffrey Stamen, DSS Division president. Where Lightship stumbles, in Stamen's view, is in its lack of integration with Command Center and in its missing Decision Support System (DSS) facilities. "We think that's important," he says.

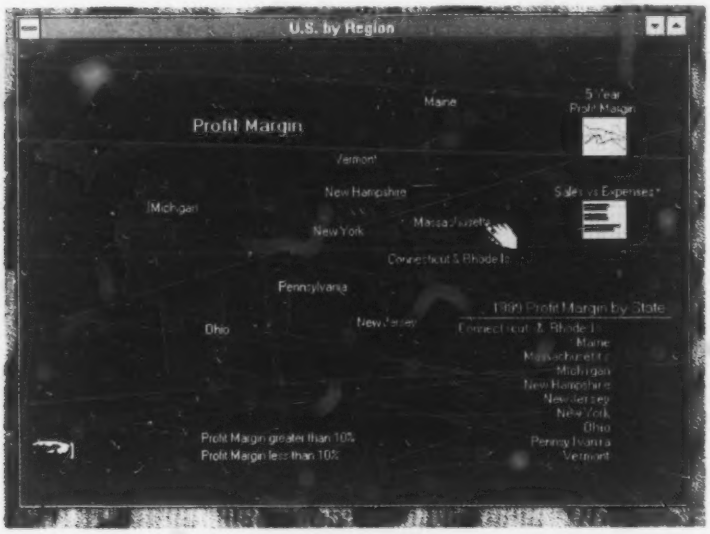
Comshare finds fault with Lightship's dependence on other Windows packages. A better approach, claims Craig Borrow, vice president of marketing at Comshare, is his company's local area network version of Commander EIS. A single architecture here provides Macintosh, OS/2 and MS-DOS (but not Windows) PCs with access to a single EIS database. "The difficulty you run into is that it [Lightship] is incapable of delivering a methodology for holding everything together."

Bob Gleason, vice president of sales at Easel Corp. in Woburn, Mass., points out what he sees as another problem. He says that his company's Manager's Portfolio product, which is actually a series of EIS templates for developers using the Easel toolkit, is similar in some ways to Lightship. But Gleason says that his company's product offers the added advantage of being scalable—that is, Easel applications developed on PCs can be upgraded to run on larger platforms.

Like these major EIS players, plenty of smaller companies in the EIS arena, many of them with PC-based products, see Lightship as the competition. Info Innov Inc. a small software firm based in Quebec, even challenges Pilot's assertion that Lightship is the first Windows-based EIS for LANs. It says that its Media EIS offering was available to run under Windows long before there even was a Windows 3.0.

EIS needs data from other sources; we see Windows as just another piece of the infrastructure for EIS.

ship/mainframe connection. Under the agreement, Information Builders will market Lightship combined with its popular PC/FOCUS fourth-generation language in a bundle called FOCUS/EIS For Windows. In this package, Information Builders will include software that translates FOCUS requests into the DDE format for Lightship. This will enable Lightship to access and display data from the many host data sources that FOCUS can tap into, including DB2, IMS and Oracle. At press time, the software was scheduled for release in March.



UNDER LIGHTSHIP'S visual programming environment, users can define screen icons as "hot spots" that trigger various EIS routines

Sony Corp. of America in Park Ridge, N.J., is a long-time user of Pilot's Command Center products. As a large FOCUS shop, Sony is interested in FOCUS/EIS Windows and is evaluating the product in its Emerging Technology group. According to Gary Fisher, manager of EIS, Sony is considering enhancing a number of FOCUS-based EIS applications with the product.

Fisher believes that the combination of Lightship and FOCUS eventually will extend the use of EIS at Sony to lower levels in the organization. "There's a bigger demand [for EIS] at the lower levels, which are more PC-oriented anyway," says Fisher. "We will probably be working on joint development efforts with our business groups to develop local EIS applications that are more detail-oriented than our Command Center applications."

Checks And Balances

Lightship and other PC-based tools clearly are destined to play an important role in the evolution of EIS. But it's equally clear that the temptation to build dispersed, departmental EIS applications introduces a number of risks, as well.

Most prominent among these is the possibility of creating dozens of modified EIS applications, each displaying data in a slightly different format or even drawing on data from different sources. It is precisely such a scenario that gives IS managers nightmares—and perhaps could keep the proliferation of PC-based EIS systems at least partially in check. "The key with Lightship is that somebody always understand the data," says David Marshak, senior consultant with the Seybold Office Computing Group of Boston. "The danger is that you can get very nice screens not pointing to the right things."

Many Lightship users are willing to take their chances. Rockwell International's Kiesey, for example, believes department heads will establish controls to ameliorate the problem of inconsistent report generation and will call upon MIS to reinforce this message. "I work for the manager of IS, the keepers of the family jewels, so obviously we want standardization. But Lightship allows our departments a tremendous increase in efficiency. It's simpler for us to say, 'OK, here are its capabilities.' The department head then has to manage his people."

Meanwhile, Pilot's competitors commend the company for having the foresight to design Lightship around Windows—a number have since announced that they'll be adding Windows to their product lines, too. But in the increasingly crowded EIS arena, competitors are only too happy to poke holes in some of what Pilot says are Lightship's strengths (see sidebar, "What The Competition Is Up To"). They criticize Lightship's current lack of integration with Command Center. They decry its dependence on other Windows packages and DDE to deliver basic EIS functionality.

For example, Lightship lacks an integrated decision support or financial-modeling capability. Although these analytical features can be added to a Lightship application via DDE links—Computer Associates International Inc.'s newly acquired Compete!3-D spreadsheet can be used for this purpose—critics contend that forcing users to rely too much on third-party products increases complexity and slows down the application.

Pilot, not surprisingly, sees things differently. "Five years ago, you didn't have common drivers, graphical user interfaces, databases and so on," says CEO Friend. "Yet it's a different world now that's moving toward standards. EIS needs data from other sources; we see Windows as just another piece of the infrastructure for EIS."

Precisely what impact Lightship and the pending raft of other networkable PC-based EIS solutions will have on the EIS industry is anyone's guess. In the meantime, Pilot says that release 3.0 of Lightship will be out by August or September with a number of new features. They include enhanced graphics tools, improved documentation, a direct link into SQL Server and a simple programming language.

Yet Lightship is still too new to act as a true industry barometer. Mark Albala, manager of executive support at American Cyanamid Co. in Wayne, N.J., admits that he's not sure where Lightship will lead him. "It's a phenomenal product, but it's too early to discuss any success stories," he says. "But it's opening doors that I didn't expect. I guess it's similar to EIS on the mainframe. It [EIS] started out in one place, then wound up in different places that nobody ever anticipated because it [Lightship] exposes people to a new delivery vehicle." ▭

MARKET INSIGHTS

A SURVEY OF TECHNOLOGY TRENDS

Windows Fever Burns OS/2, Melts Macs

BY WARREN CHILDS
Business Research Group

Microsoft's Windows 3.0 will soon become the fastest selling single software product of all time, having already shipped some 3 million copies in just under a year. The most recent survey of DATAMATION's Technology Panel shows that users have been quick to accept the MS-DOS based graphical user interface (GUI). Nearly three-quarters of panel members say Windows 3.0 is already in use at their sites, and half say MS-Windows will become a standard at their organization.

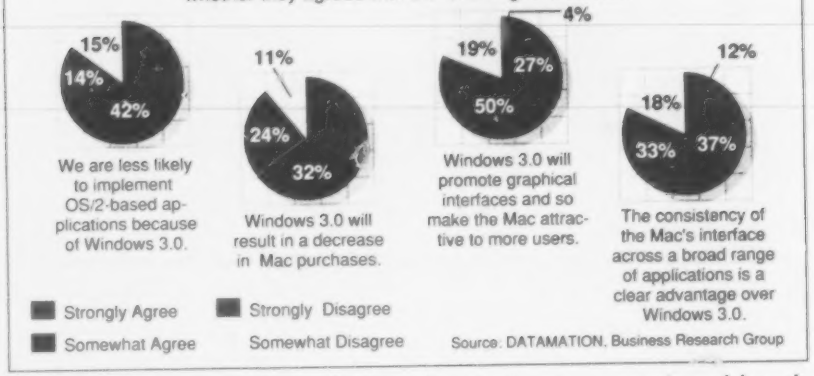
The growing interest in Windows is eclipsing the future role of OS/2 in new applications and could put a crimp in Apple Computer Inc.'s plans to force open a market niche in commercial applications, according to our panel members. More than 70% of panel members either strongly or somewhat agree that they will be less likely to implement OS/2-based solutions now because of Windows 3.0. Ditto for plans to buy into the Apple Mac dream—nearly two-thirds agree that Windows 3.0 will result in a decrease in Macintosh purchases.

Some analysts have predicted that the interest Windows is generating in graphical user interfaces will cause users to take a closer look at the advantages of the Apple Mac, with its well-developed catalog of user-friendly GUI-based applications. So far, this doesn't seem to be the case. Only 4% of panel members strongly agreed that Windows 3.0 might make the Mac look more attractive, although nearly half did agree that the broad range of applications already developed that use the Macintosh interface still could give the Mac a clear advantage over Windows 3.0. □

For more information, call Nancy Finn at (617)-964-6204, fax her at (617)-558-4402 or write to her at the Business Research Group, 275 Washington Street, Newton, MA 02158.

Windows 3.0 Is Hot And OS/2 Is Not

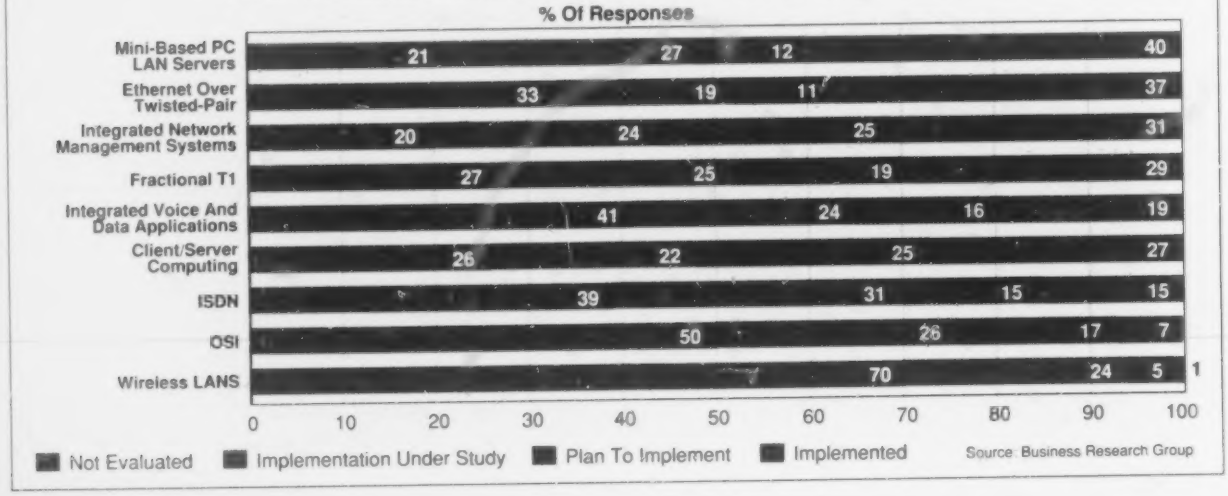
Members of the DATAMATION Technology Panel were asked whether they agreed with the following statements:



Source: DATAMATION, Business Research Group

DATAMATION's Technology Implementation Index: Networks/Communications

DATAMATION each month surveys a select group of its readers—the DATAMATION Technology Panel— to investigate the implementation of new technologies by key user organizations.



Source: Business Research Group

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